Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

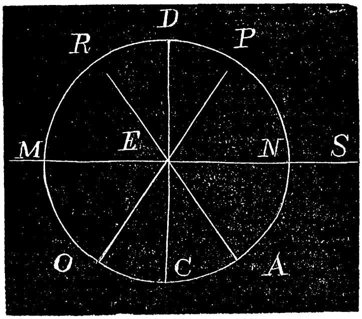
Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at http://about.jstor.org/participate-jstor/individuals/early-journal-content.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Discussion of a Proposition by R. J. Adcock.—*Proposition.* The Earth is in the Moon's path.



Let ABC be the elliptic orbit, nearly circular, of the moon described about the earth at E, when unaffected by the sun's attraction at S. Draw CD at right ang's to ES, AR and BO making the angles NEB and NEA each equal to about 54° 44′.

As the moon moves in the same plane with ES, it is shown in elementary astronomy that the radial component of the sun's disturbing action is zero at O, A, B, R, that it acts towards the earth while the moon moves from O to A and from B to R, and from the earth from A to B and from R to O. And that the component at right angles to the radius vector accelerates the moon's angular motion from C to N and from D to M, and retards it from N to D and from M to C.

If the tangential component of the sun's disturbing force act upon the moon for one entire revolution, while the moon is constrained to move in its instantaneous fixed ellipse the angular momentum or area described by the radius vector in a unit of time would be the same at the end as at the beginning of the revolution. But when not thus constrained, the radial component will cause a greater decrease of the radius vector in the second half of each of the angles OEA and BER than in the first. And a greater increase in the second half of AEB and of REO than in the first. Therefore the tangential component will make a decrease of angular momentum in each of the four angles OEA, AEB, BER, REO. Therefore the angular momentum of the moon will decrease at every revolution causing it to descend to the earth.

[Granting Mr. Adcock's position with respect to the sun's disturbing influence on the elliptic orbit of the moon about the earth, it follows that the moon would, during the lapse of a sufficient period of time, descend in a spiral path to the earth, or sufficiently near to cause disruption of the moon and the descent of a part of it to the earth, yet we cannot perceive that the above proposition, that "The Earth *is* in the Moon's path", has been established. But, as the problem of the moon's motions is by no means a simple one, perhaps we do not understand the proposition as Mr. Adcock intended it to be understood.—Ed.]